I Claim:

[C1] A convertible seat bed mechanism for recreational vehicles having a frame, a seat back and a seat bottom, said seat back and seat bottom shiftable between a seating position and a bed position through movement of interconnected seat and back hinge plates and front and rear swing links, and having a storage compartment under the seat bottom, comprising:

disposing a swing bracket between the seat and back hinge plates;

pivoting the seat bottom about said swing bracket;

enabling the raising the seat bottom by rotation of the seat hinge plate about a pivot to the swing bracket;

enabling the supporting of the seat bottom by a ratcheting mechanism which permits the seat bottom to be raised to a storage access position and locked, and raised again to unlock and then lowered to a seating position, the unlocking being accomplished by cyclic motion and without the use of a separate release for lock.

the rear swing link and a front swing link are pivotally attached to a leg bracket at the lower ends of the respective links;

a back hinge is pivotally connected at the upper end of rear swing link at a pivot approximately in the middle of said back hinge;

the bottom end of said back hinge is pivotally connected to said swing bracket at the top, rear of said swing bracket;

the top of front swing link is pivotally connected to the top, front of said swing bracket;

a swing tie link pivotally interconnects said front and rear swing links, and crosses but does not connect to, said swing bracket;

said locking mechanism is pivotally connected to said swing bracket and slidably and lockably interconnects said swing bracket and said seat bottom to permit the raising, locking and lowering of said seat bottom to expose said storage area;

a pair of said mechanisms forming left and right sides of a seat bed;

a pair of said swing brackets each having an inwardly turning flange arranged so that flanges face one another;

a timing bar spanning said flanges;

a handle attached to said timing bar such that motion imparted by said handle is directly transmitted to the respective swing bracket on each side of the seat bed, aiding in the motion of the linkage shifting from a seating to a bed position;

the seat bottom and seat back in their open and locked position are angularly displaced from each other by an acute angle substantially greater than a parallel;

the angle between the open and locked seat bottom and the seat back, when the seat bottom is in the open and locked position, is maintained by said ratcheting mechanism pivotally connected to the seat hinge.

[C2] A convertible seat bed mechanism for recreational vehicles having a frame, a seat back and a seat bottom, said seat back and seat bottom shiftable between a seating position and a bed position through movement of

interconnected seat and back hinge plates and front and rear swing links, and having a storage compartment under the seat bottom, comprising:

disposing a swing bracket between the seat and back hinge plates;

pivoting the seat bottom about said swing bracket;

enabling the raising the seat bottom by rotation of the seat hinge plate about a pivot to the swing bracket;

enabling the supporting of the seat bottom by a ratcheting mechanism which permits the seat bottom to be raised to a storage access position and locked, and raised again to unlock and then lowered to a seating position, the unlocking being accomplished by cyclic motion and without the use of a separate release for lock..

[C3] The invention of claim 2 further comprising:

a pair of said mechanisms forming left and right sides of a seat bed;

a pair of said swing brackets each having an inwardly turning flange arranged so that flanges face one another;

a timing bar spanning said flanges;

a handle attached to said timing bar such that motion imparted by said handle is directly transmitted to the respective swing bracket on each side of the seat bed, aiding in the motion of the linkage shifting from a seating to a bed position.

[C4] The invention of claim 2 said ratcheting mechanism further comprising

a lock bracket having a longitudinal slot with a first end and a second end;

a butterfly shaped, ratcheting lock tab slidably and rotatably fastened through said slot;

said first end is fastened to said swing bracket;

a stop member located proximate said second end;

an offset track extending substantially the length of said slot and having a first edge and a second edge;

when said seat bottom is lifted, said lock tab travels along said slot;

when said lock tab reaches said second end, said lock tab hits said stop member causing said lock tab to rotate approximately 45°; as said seat bottom is lowered slightly, said lock tab catches said first edge of said offset track thereby locking the seat in an up position; when the seat is next lifted, said lock tab hits said stop member again causing said lock tab to rotate to align it with said slot, thus allowing the seat to pivot back to a seating position.

[C5] The invention of claim 4 further comprising:

a pair of said mechanisms forming left and right sides of a seat bed;

a pair of said swing brackets each having an inwardly turning flange arranged so that flanges face one another;

a timing bar spanning said flanges;

a handle attached to said timing bar such that motion imparted by said handle is directly transmitted to the respective swing bracket on each side of the seat bed, aiding in the motion of the linkage shifting from a seating to a bed position.

[C6] The invention of claim 2 further comprising:

the rear swing link and a front swing link are pivotally attached to a leg bracket at the lower ends of the respective links;

a back hinge is pivotally connected at the upper end of rear swing link at a pivot approximately in the middle of said back hinge;

the bottom end of said back hinge is pivotally connected to said swing bracket at the top, rear of said swing bracket;

the top of front swing link is pivotally connected to the top, front of said swing bracket;

a swing tie link pivotally interconnects said front and rear swing links, and crosses but does not connect to, said swing bracket;

said locking mechanism is pivotally connected to said swing bracket and slidably and lockably interconnects said swing bracket and said seat bottom to permit the raising, locking and lowering of said seat bottom to expose said storage area.

[C7] The invention of claim 2 further comprising:

the seat bottom and seat back in their open and locked position are angularly displaced from each other by an acute angle substantially greater than a parallel.

[C8] The invention of claim 7 further comprising:

the angle between the open and locked seat bottom and the seat back, when the seat bottom is in the open and locked position, is maintained by said ratcheting mechanism pivotally connected to the seat hinge.

[C9] A seat bottom opening and seat to sofa converting mechanism for moving a seat bottom frame and a seat back frame pivotally mounted on a leg frame comprising:

a seat hinge of generally triangular shape, with its base being parallel to the frame for the seat bottom, with a first pivoted apex;

a back hinge formed as a tetragon, of generally deltoid shape, with one side parallel to the frame for the seat back, with a second pivoted apex;

a swing bracket formed as a tetragon of generally trapezoidal shape, oriented with it's a first, narrow, side down, said swing bracket receiving the pivot for the first apex at a front apex of a second, wide, side opposite said first side, and receiving the pivot for the second apex at a rear apex of said second side;

movement of said mechanism between a seated position and a bed position being accomplished by imparting a force on said swing bracket, and translating motion through front and rear swing links attached to the seat and back hinges, respectively, said links being interconnected by a tie link; and

movement of said seat bottom from a seating position to a storage position being controlled by a sliding lock that permits operation through a cycle of opening to an open position, lowering to a locked storage position, opening to an unlocked position and lowering to a closed position, with said cycle being the sole mechanical force operating said sliding lock.

[C10] The invention of claim 9, said sliding lock further comprising:

a lock bracket having a longitudinal slot with a first end and a second end;

a butterfly shaped lock tab slidably and rotatably fastened through said slot;

said first end is fastened to said swing bracket;

a stop member located proximate said second end;

an offset track extending substantially the length of said slot and having a first edge and a second edge;

when said seat bottom is lifted, said lock tab travels along said slot; when said lock tab reaches said second end, said lock tab hits said stop member causing said lock tab to rotate approximately 45°;

as said seat bottom is lowered slightly, said lock tab catches said first edge of said offset track thereby locking the seat in an up position;

when the seat is next lifted, said lock tab hits said stop member again causing said lock tab to rotate to align it with said slot, thus allowing the seat to pivot back to a seating position.

[C11] The invention of claim 10 further comprising:

a pair of said mechanisms forming left and right sides of a seat bed;

a pair of said swing brackets each having an inwardly turning flange arranged so that flanges face one another;

a timing bar spanning said flanges;

a handle attached to said timing bar such that motion imparted by said handle is directly transmitted to the respective swing bracket on each side of the seat bed, thereby imparting said force on said swing bracket.

[C12] The invention of claim 11 further comprising:

the seat bottom and seat back in their open and locked position are angularly displaced from each other by an acute angle substantially greater than a parallel.

[C13] The invention of claim 12 further comprising:

the angle between the open and locked seat bottom and the seat back, when the seat bottom is in the open and locked position, is maintained by said ratcheting mechanism pivotally connected to the seat hinge.

[C14] The invention of claim 13 further comprising:

the seat bottom and seat back in their open and locked position are angularly displaced from each other by an acute angle of about 60 degrees.